

# New Jersey Wildlife Action Plan

## What is a wildlife action plan?

Congress asked each state to develop a wildlife action plan, known technically as a comprehensive wildlife conservation strategy. These proactive plans examine the health of wildlife and prescribe actions to conserve wildlife and vital habitat before they become more rare and more costly to protect.

## New Jersey snapshot

**Geography:** New Jersey sits at the convergence point of the east coast's northern and southern ecosystems. Consequently, the state consists of a variety of mountains, valleys, rolling hills, wetlands, pinelands, beaches, estuaries and riverine systems. The state's larger, unfragmented forest tracts are among the largest on the mid-Atlantic coast.

**Landscape:** The nation's most densely populated state, however, has a rapidly changing landscape, which creates an unprecedented wildlife conservation challenge for its citizens. Destructive influences on habitat and wildlife populations abound, some being the result of unsustainable development while others include increased human competition with wildlife for natural resources, declining forest health and the influx of exotic or invasive species.

**Wildlife highlights:** New Jersey's inland forests are home to resident bobcats, barred owls and timber rattlesnakes, and provide essential stopover habitat for most of the eastern U.S. migratory population of songbirds and raptors. At

the same time, the state's Atlantic and Delaware Bay coastal habitats are home to bald eagles, northern harriers, black rails and piping plovers and are critical to millions of migratory raptors, waterfowl, shorebirds, butterflies, dragonflies, and fishes.



Bobcat/NJDEP

## New Jersey's planning approach

Under the leadership of the Division of Fish and Wildlife, partner conservation agencies and stakeholder groups from across the state collaborated in the creation of our Action Plan, which is a blueprint for statewide protection of wildlife with special conservation needs. The plan, which is based on accurate and current data, is an ecosystem based management strategy that focuses heavily on habitat and species protection, management and restoration. The Wildlife Action Plan embodies the collective judgment of the state's conservation professionals regarding which species should receive special attention and what actions should be taken. It identifies tasks for nearly every agency and stakeholder group that has some influence over land use and wildlife habitats.

*“Our Wildlife Action Plan will provide a brighter future for New Jersey’s rare species and important habitats. While the strategy focuses on special need species and describes the conservation work that will benefit those species, ultimately all fish and wildlife species in New Jersey will benefit from this work.”*

*—Lisa P. Jackson,  
Commissioner, NJ Department  
of Environmental Protection*

## Primary challenges to conserving wildlife in New Jersey

New Jersey's action plan identifies state-wide threats as well as specific regional threats. The primary threats to state wildlife include habitat fragmentation, invasive species, and contaminants.



Eaglets/NJDEP

**Habitat fragmentation** resulting from suburban sprawl and increased housing and road development breaks up large critical habitats into smaller patches, which do not provide suitable habitat for many of the state's rare species. Fragmentation can be especially harmful to interior forest species that need large habitats such as bobcats,

timber rattlesnakes and red-shouldered hawks, as well as to grassland species such as the grasshopper and vesper sparrows.

**Invasive species** include native and exotic, terrestrial and aquatic animals, plants, invertebrates and exotic pathogens that cause significant impacts and permanent loss of terrestrial and aquatic ecosystems. The cost of restoring habitat destroyed by invasive species can be prohibitive and requires persistent and long-term management.

**Contaminants** include point and non-point source pollution and oil spills. Oil spills threaten freshwater and salt marsh ecosystems and the wildlife that rely on them, while contaminants from point and non-point sources degrade habitat and cause developmental and behavioral abnormalities and reproductive failure in wildlife.

Wildlife	Total number of species	Species in need of conservation <sup>1</sup>	Threatened/endangered listed species
Mussels	14 <sup>3</sup>	9	8
Snails <sup>2</sup>	85	0	0
Insects	> 10,000	66	9
Fish	400 <sup>4</sup>	20	1
Amphibians	33	11	6
Reptiles	44	17	11
Birds	327 <sup>5</sup>	149	29
Mammals	89 <sup>6</sup>	17	9
<b>Totals</b>		<b>289</b>	<b>73</b>

<sup>1</sup> Each state is using its own criteria for this category. New Jersey focuses on wildlife species with small or declining populations or other characteristics that may make them vulnerable to state extirpation or future listing. This group includes legally recognized threatened/endangered species, species of regional priority, nongame fish and game species which are recognized by Division of Fish and Wildlife staff as species of potential concern.

<sup>2</sup> Snails are not included within the NJ Wildlife Action Plan as little or no research has been done to determine their population status within the state.

<sup>3</sup> Includes two introduced species.

<sup>4</sup> Figure represents marine and freshwater fish species, twenty-one of which have been recorded in both marine/estuarine and freshwater environments (or ecosystems).

<sup>5</sup> Figure includes migratory and resident species.

<sup>6</sup> Figure includes 29 marine mammals including 25 cetacean species and four pinniped species.

### Wildlife highlights

Highlight habitats	Wildlife (examples)	Issue (examples)	Action (examples)
<b>Atlantic Coast-Beaches &amp; Dunes</b> Ownership: mix of private/public	• Bobcat • Timber rattlesnake • Pine snake • Cerulean warbler • Black-throated green warbler	• Impacts of beach nourishment projects	• Develop beach management agreements with municipalities that address impacts of recreation and municipal beach management in collaboration with the U.S. Army Corps of Engineers and NJDEP will implement features of the agreement into beach nourishment projects to increase availability of and access to nesting and foraging habitat.
<b>Cape May-Forests and Wetlands</b> Ownership: mix of private/public	• Migratory birds including: peregrine falcon, red-shouldered hawk, American kestrel, Cooper's hawk, sharp-shinned hawk	• Habitat loss and fragmentation due to development	• Require environmental review of all development projects in the Cape May peninsula that would affect field, forest, and shrub habitats. • Minimize impacts by requiring clustered design & mitigating habitat loss. • Institute and promote backyard habitat management with incentives to landowners and municipalities that adopt habitat management.
<b>Delaware Bay-Beaches and Marshes</b> Ownership: mix of private/public	• Migratory shorebirds including: red knots and sanderlings	• Over-harvest of horseshoe crabs • Bulkheading • Development of shoreline	• Identify a population level of horseshoe crabs that sustains the horseshoe crab (HSC) population in Delaware Bay while also meeting the nutritional needs of the migratory shorebirds that depend on horseshoe crab eggs. • Restrict commercial harvest of HSC to a level that sustains crabs & birds. • Don't issue state permits for bulkheading along Delaware Bay beaches in areas suitable for HSC spawning and shorebird resting, feeding & roosting.
<b>Delaware River</b> Ownership: States of New Jersey, Pennsylvania, New York	• Shortnose sturgeon • Dwarf wedgemussel, brook floater, yellow lampmussel and other rare mussels	• Dredging • Water quality • Instream projects (e.g. bridge modifications)	• Minimize impacts on shortnose and Atlantic sturgeon and on rare mussels during spawning and glochidial release times from dredging. • Seek antidegradation stream classification or critical areas designation in spawning and nursery areas to protect water quality for shortnose and Atlantic sturgeon and where rare mussels occur. • Work with water watch groups, etc. to plant native vegetation and encourage stream bank restoration efforts.
<b>Piedmont-Upland and Wetland forest</b> Ownership: mix of public/private	• Wood turtle • Pine snake • Migratory & resident species of bats (eg. hoary & Indiana bats), & breeding birds (eg. northern goshawk),	• Habitat loss and fragmentation • Lack of species and habitat data	• Establish a working group with NJ Department of Transportation (NJDOT) to increase wildlife egress and reduce mortality by increasing habitat connectivity and road permeability. • Incorporate extant data from conservation organizations into Landscape Project mapping and use data to to define important stop over locations and target systematic surveys of these sites through Citizen Science Program.
<b>Piedmont-Early Successional Habitat</b> Ownership: mix of public/private	• Migratory & resident breeding birds (eg. golden-winged warbler, Henslow & vesper sparrow) • Migratory & resident invertebrates (eg. Appalachian grizzled skipper)	• Habitat loss and fragmentation • Lack of species and habitat data	• Establish a working group with NJDOT to develop actions to increase habitat along secondary roads for invertebrates and early successional bird species with reduced mowing and planting of host and native plants. • Use Landscape Project to protect critical stopover and breeding areas through targeted land acquisition and conservation easements; enhance sites through incentives to landowners & municipalities that adopt habitat standards.
<b>Piedmont-Riparian</b> Ownership: mix of public/private	• Migratory and resident species of bats (eg. eastern red & silver-haired bats) and breeding birds (eg. Louisiana waterthrush) • Freshwater fish • Wood turtle	• Habitat loss, degradation, and fragmentation • Lack of species and habitat data	• Increase fish passage through multiple bridge culverts w/ natural bottoms. • Increase the effective size and connectivity of open space in suburban landscape and reduce the influence of developed edge through non-regulatory methods such as increased enrollment in landowner incentive and backyard habitat management programs targeting properties adjacent to public lands and bordering riparian areas.
<b>Pinelands-Forest</b> Ownership: mix of private/public	• Timber rattlesnake • Pine snake • Corn Snake	• Habitat loss and fragmentation • Altered natural fire cycles	• Create larger and more contiguous patches of permanently preserved land through targeted land acquisition. • Reevaluate the boundaries of the existing Pinelands Management Zones & incorporate new species information into regional planning in the Pinelands. • Develop and implement management techniques that can safely be used to mimic the historic role of fire in shaping the Pinelands ecosystem.
<b>Northern NJ-Emergent Wetlands &amp; Wet Meadows</b> Ownership: mix of private/public; mostly private	• Bog turtle	• Habitat loss and fragmentation • Alteration to hydrology • Nest predation	• Use the Landscape Map to identify critical wetland habitats for bog turtles and/or other wetland dependent species and manage them through fee simple acquisition, conservation easements, development of management plans w/ public agencies and through private landowner incentives/agreements. • Use the Landscape Map to identify important corridors that form a system of large, connected wetland habitat and protect these areas through land acquisition, conservation easements, acquisition of development rights and transfer of development rights.
<b>Highlands-Forests</b> Ownership: mix of private/public	• Timber rattlesnake • Indiana bat	• Habitat loss & fragmentation • Wanton killing; poaching	• Implement forest management plans and increase the acreage of existing large, contiguous forest tracts by developing partnerships with public agencies and private landowners to increase enrollment in the landowner incentive programs.

**Recommended actions to conserve New Jersey's wildlife**

## Working together for New Jersey's wildlife



Grasslands Management/ NJDEP

*“New Jersey has an incredible diversity and abundance of wildlife and habitats. Our Wildlife Action Plan will ensure future generations can enjoy the same diversity and abundance we enjoy today.”*

*- Dave Chanda, Director,  
NJ Division of Fish and  
Wildlife*

The New Jersey Department of Environmental Protection (NJDEP), Division of Fish and Wildlife (DFW) worked internally to create a draft Wildlife Action Plan to be used as guidance. Leaders representing the constituencies of various conservation organizations including NJ Audubon Society, The Nature Conservancy-NJ Chapter and the NJ Conservation Foundation then reviewed the draft.

NJDEP then co-hosted a Wildlife Summit with N.J. Future where more than 150 attendees from numerous organizations actively participated in discussions focused on nine key topics (municipal land use planning, state and regional land use planning, land use reg-

ulation, landowner incentive program, public and private acquisition, infrastructure, invasive and overabundant species management, habitat restoration and management, and public land management). Participants included state and federal agencies such as the US Fish and Wildlife Service-N.J. Field Office, N.J. Dept. of Agriculture, National Park Service, National Wildlife Refuges throughout the state, the governor's office, the N.J. Department of Transportation, the N.J. Forest Service, and N.J. Office of Smart Growth. In addition, a wide range of conservation organizations, watershed associations, sportsmen's groups and regional planning councils participated in the Summit. Comments were submitted during the Summit and via a website comment form after the Summit.

The final draft was then posted on the DFW's website. The NJDEP continues to receive public comment for consideration and incorporation into the plan.



Forested Wetland/NJDEP

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